DOCUMENT RESUME

ED 436 155 IR 019 780

AUTHOR	Mitchell, Marlon R.
TITLE	Effects of Faculty Motivation in Distributive Education Environments at Institutions of Higher Education.
PUB DATE	1999-02-00
NOTE	8p.; In: Proceedings of Selected Research and Development Papers Presented at the National Convention of the Association for Educational Communications and Technology [AECT] (21st, Houston, TX, February 10-14, 1999); see IR 019 753.
PUB TYPE	Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Administrators; College Faculty; *Distance Education; *Educational Environment; Educational Theories; Higher Education; Job Satisfaction; Self Efficacy; Teacher Attitudes; *Teacher Motivation; Teacher Surveys
IDENTIFIERS	Administrator Surveys

ABSTRACT

This research utilizes a survey to gather data about faculty motivation toward distributive education (DE), focusing on the three innermost rings of Don Olcott's Institutional Support Framework: faculty; promotion and tenure, compensation, training, and release time; and faculty senate, deans, president/provost, and chairs. The sample for the study was selected from a list of technology users (faculty and administrators) who subscribe to Indiana Higher Education Telecommunications Services (IHETS) for delivery of instructional services. The questionnaire was distributed via e-mail and focused on three themes--faculty demographics, job satisfaction, and early socialization. In order to examine the effect of DE on faculty motivation, the following three factors were evaluated: (1) differences in motivation of faculty according to career status; (2) difference in administrative and faculty perceptions of reward structure; and (3) difference in motivation to teach via distance. It is concluded that faculty are intrinsically motivated to teach in DE. Motivation theory supplies a foundation upon which faculty socialization to DE can be built. Theories such as goal setting, participant modeling, and intrinsic motivation can be used to foster an efficacious environment. (MES)

Effects of Faculty Motivation in Distributive Education Environments at Institutions of Higher Education

By:

Marlon R. Mitchell

EFFECTS OF FACULTY MOTIVATION IN DISTRIBUTIVE EDUCATION ENVIRONMENTS AT INSTITUTIONS OF HIGHER EDUCATION

Marlon R. Mitchell
Indiana University

As the distributive education environment (DE) grows and develops many changes in current administrative policy and faculty approaches to instruction will need to evolve to accommodate this method of delivery. Distributive education is a form of instruction that is dynamic, using many modes of delivery. This delivery may be synchronous or asynchronous and takes into account alternative methods available to the faculty (internet, lecture, video, audio, etc.). However, utilizing these alternative methods usually requires a more demanding workload for the faculty. The heavier workload is a result of designing, developing, implementing, and evaluating the materials delivered via DE.

This research will attempt to evaluate three factors that may underlie faculty resistance to distributive education:

1. Difference in motivation in faculty according to career status (junior, senior, departmenthead),
2. Difference in Administrative and faculty perceptions of reward structure, and
3. Difference in motivation to teach via distance (intrinsic and extrinsic).

Research suggests that these themes are recurring in institutions of Higher Education (Blackburn & Lawrence, 1995). Blackburn's findings neither support nor reject themes one and two. Blackburn suggests that faculty call on one or the other reward system depending on factors and circumstances neither theory alone adequately takes into account. Blackburn also suggests that socialization is a recurring, if not continuous, phenomenon. Faculty socialization begins in graduate school and continues throughout their career. Senior faculty, administration, and other cultural factors of the institution indoctrinate faculty. If the faculty changes institutions re-socialization often happen.

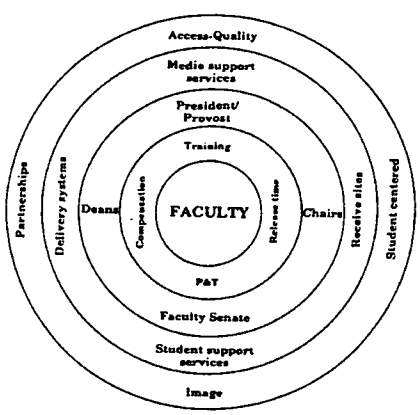
The resources necessary for successful development and implementation of DE are not the focus of this research. This research examines the chief factor underlying effective instruction, the faculty. A primary barrier determining the future of DE may be the faculty's attitudes, perceptions, and willingness to use technology. The intention therefore is to determine if a link exists between motivation and the use of technology. There appears to be a need to increase the intrinsic motivations of faculty to use the technology; therefore, minimizing the cost of extrinsic rewards (Deci, Eghrari, Patrick, & Leone, 1994). Increasing intrinsic motivation and decreasing extrinsic rewards may lead to higher perceived self-efficacy.

> "Judgements of one's capabilities can affect rate of skill acquisition, and performance mastery, in turn, can boost self-efficacy in a mutually enhancing process", (Bandura & Schunk, 1981).

Cultivating faculty self-efficacy may produce higher quality instruction and increase faculty and institutional efficacy (Newman & Tuckman, 1997). If this has some truth, then efforts in developing faculty motivation must emphasize the importance of faculty and institutional efficacy. Olcott's research supports this assertion.

Don Olcott's Institutional Support Framework (Olcott & Wright, 1995) examines an institutional faculty support system. The framework consists of structures ranging from evaluation, modes of delivery and support, administrative duties, reward systems, and faculty. The framework has five levels represented by rings.

In this article, the focus is on the three innermost rings of Olcott's framework. The commonality that binds



this structure is their direct effect on faculty motivation. The core of the structure represents the faculty.

The next ring represents promotion and tenure, compensation, training, and release time. The rings described above can be utilized to help the faculty internalize the extrinsic rewards each represents. The internalization can have positive effects on self-efficacy.

The administrative bodies are best able to deal with institutional efficacy. The outermost ring of our focus represents faculty senate, deans, president/provost, and chairs. The outermost rings are bodies that may effect faculty motivation. Once the institution believes that faculty motivation is of critical importance to its growth and development, then the change permeates the institution in a top down approach. This change will be reflected in the second ring of Olcott's framework.

> "Despite the recent expansion of distance education programs, many faculty continue to resist participation in distance teaching. We assert that this resistance has been due, in large part, to the lack of an institutional support framework to train, compensate, and reward distance teaching faculty at levels commensurate with those in traditional instructional roles"(Olcott & Wright, 1995).

To maximize faculty participation their personal motivation must be increased to a level of satisfaction. To minimize the cost of extemalities (money, time, etc.) the reward structure must lend itself to cultivating intrinsic motivators and internalizing external motivators (Bandura, 1991). A person is intrinsically motivated when no apparent rewards are received except for the activity itself. Intrinsic motivation might be either innate or learned. Education is generally said to be an intrinsically motivated profession. Many primary and secondary educators have been known to work in precarious environments, educating children despite obstacles and adversity. For them, teaching in such conditions is worth it even if only one child leaves more knowledgeable then when they began. Their gratification does not come in the form of salary or benefits; their reward comes from the act of teaching. On the other end of the continuum we have external rewards. External rewards tend to reduce intrinsic motivation (Deci, 1971). In addition, the administrators must take on a significant role in supporting the reward structure with policy and finance.

Faculty motivation is a topic that has re-emerged out of an attempt to restructure the institution of education to fit the non-traditional method of instructional delivery commonly known as distance education (Clark, 1993). Faculty have always been considered an invaluable resource, but often our most precious resources are neglected and taken for granted (Dillon & Walsh, 1992). Findings from a study by Taylor & White (1991) suggest that faculty are generally motivated by intrinsic rewards rather than extrinsic rewards when evaluating the benefits of distance education. They studied an Australian higher education institution, where faculty is required to work in the conventional face to face setting as well as to prepare materials for use by distance education. The findings suggest that faculty derived job satisfaction from teaching via distance education. The following five ratings were consistent in importance in terms of faculty attitudes toward teaching in the distance education mode: quality of interaction with students; working with motivated students; satisfaction from the act of teaching; feeling of personal achievement; and high level of student outcomes (Taylor & White, 1991).

Attitudes of American faculty in higher education institutions are consistent with Australian faculty.

In a study of telecourse faculty at an American university,

> "A few faculty will continue to utilize telecommunications to teach students at a distance for a variety of personal reasons, ranging from diversity of experience to an altruism toward the nontraditional learner" (Dillon, 1989).

This quote supports the view that a few faculty members are intrinsically motivated to teach, whether an external reward is provided or not. However, this does not mean that teaching does not require external rewards.

In a survey of 317 faculty, thirty seven percent of faculty expressed a belief that they would not be adequately rewarded for their efforts in distance education (Clark, 1993). A national study of 4,000 full-time, tenure track faculty generally agreed that research is heavily rewarded in merit pay increases, tenure, and promotion decisions (Fairweather, 1993). It also shows faculty believed that adequate teaching is a necessary but not sufficient condition for tenure. Therefore, faculty has a motive to avoid devoting extensive amounts of time to teaching (distance education, lecture, etc.) (Kasten, 1984).

Barriers (lack of time, increase in workload, technical problems) to distance education may contribute to the decline of faculty motivation (Dillon & Walsh, 1992). Faculty may create their own barriers to using distance education; therefore, directing their efforts to other aspects of academia:

> "It also appears that faculty career stages do not allow for any adoption to occur, either. For faculty in the early entry and career stabilization stage, the importance of obtaining tenure dramatically outweighs the experimentation with a questionable and little researched teaching innovation. The midlife stage faculty does not accept the thought of style of teaching in front of a classroom that has taken several years to develop and has rewarded them with the necessary tenure and promotions. The senior life stage faculty is no different. The senior professor realizes that a high merit increase closer to retirement is more important than a change of a teaching style" (Koontz, 1989).

It appears that in order to get faculty to incorporate DE into their method of instruction their motives must change. This leads us to explore research in the field of motivation.

To begin we will examine the research surrounding intrinsic motivation and extrinsic rewards. Intrinsic motivation and extrinsic rewards are extremely important in the struggle to overcome the barriers to DE. In order to facilitate the growth and development of DE a balance between the two is needed. The research has shown that offering extrinsic rewards may diminish intrinsic motivation (Deci, 1971). However, research has also shown that extrinsic rewards may also increase intrinsic motivation when linked to goals (Heyman & Dweck, 1992). Goals setting theory states that common human behavior is purposeful; therefore, regulated by an individuals (Latham & Locke, 1991). Goal setting has at least three attributes of motivated action: (1) direction: goals are directed by relevancy of action, (2) intensity: effort is regulated or expended accordingly to difficulty of goal, and (3) duration: goals are effected by time (Latham & Locke, 1991). Goal setting and motivation research shows that proximal (immediate) goals can develop self-efficacy and intrinsic motivation (Bandura & Schunk, 1981). It has also been shown that personally setting distal (distant) goals can have a positive effect on intrinsic motivation (Manderlink & Harackiewicz, 1984). Distal goals can increase institutional efficacy if the leaders provide them to their employee's and use proximal goals as benchmarks (Latham & Locke, 1991). Participant modeling with verbal persuasion can promote self-efficacy and task performance (Newman & Tuckman, 1997).

Methodology

This research utilizes a survey to gather data about faculty motivation towards distance education. Indiana Higher Education Telecommunications System was chosen as the group to sample. Because this group reflected characteristics of the target population of the study which included; 1)people in higher education, 2)that were involved in distributive education environments, 3)and were in both administrative and faculty positions. The sample for the study was selected from a list of statewide technology users (Faculty and Administrators) who subscribe to Indiana Higher Education Telecommunications Services (IHETS) for delivery of instructional services. IHETS services include internet, video down link, and audio-graphics. IHETS maintains a distribution list of administrators and faculty that use their services.

The questionnaire was distributed via E-mail and included both the closed-form which permits limited responses (multiple-choice questions) and open-form. The open form allows any comments that the participant may want to contribute. The survey methodology was chosen because of its usefulness in data collection. It allowed for the distribution of the same instrument (questionnaire) to all of the participants of the study. The questionnaire also aided in the data analysis strategy chosen. A descriptive research strategy was employed to summarize the data collected. The data collection instruments were delivered via electronic mail to an IHETS distribution list of faculty and administrators. Approximately two hundred people subscribe to this distribution list. At the time of the survey, the administrator of the listserve confirmed that only fifty to seventy-five of the two hundred subscribers were active participants. Thirty-two people responded to the survey, of the respondents thirteen were usable. Surveys that were incomplete were not used. Faculty and administrators from eight higher education institutions in the state of Indiana actively contribute to the listserv. This listserv is a place that subscribers can discuss issues surrounding distance education. An invitation to participate (Appendix A) in the study was sent to the distribution list followed by a survey questionnaire (Appendix B).

The survey was created using a couple of strategies. First, a collection of previous surveys and questionnaires were analyzed and then synthesized into an instrument that was then pre-tested with two faculty members. Secondly, the results of the pre-test were taken into consideration and the assistance of a campus research statistical service was employed. The result of which was distributed to the participants of this research.

The collection device (questionnaire) centered around three themes: faculty demographics, job satisfaction, and early socialization. Faculty and administrators were asked to respond to the questions and return them in a relatively short period of time, approximately one week. During that time frame, reminders were sent to expedite the return.

Quantitative methods of data analysis were employed to synthesize results. Statistical Package for Social Science (SPSS) was used to collect and analyze the data. The following statistical functions were used to give an accurate description of the data collected and analyzed frequency distribution, factor analysis, and t-Test. Three statistical procedures were used frequency distribution, factor analysis, and t-Tests respectively. Frequency distribution more commonly known as frequency count recording is defined as the measurement of the number of times that each observation variable occurs during an event (Borg, Gall, Borg page 760). Secondly, in an effort to narrow the scope of variables a statistical procedure called factor analysis was applied. Factor analysis is a statistical procedure for reducing a set of measured variables to a smaller number of variables (called factors or latent variables) by combining variables that are moderately or highly correlated with each other (Gall, Borg, Gall page 759). Third, a t-Test is a test of statistical significance is used to determine whether the null hypothesis that two sample means come from identical populations can be rejected (Gall, Borg, Gall page 772). Statistical significance is evaluated by the power that it holds. The term power refers to the ability of a statistical analysis to reduce Type II errors. Higher power tests are more likely to find statistical relationships when there is one (Vockell & Asher, 1995). We will discuss our views and discoveries resulting the methodology employed.

Discussion and Analysis

Faculty motivation is not a new topic; however, its is an old one that has been rejuvenated in light of distributive education. In order for DE to take a stronghold in education the primary resource (faculty) must adopt it and implement it into their pedagogy. This change creates a need to find the source of faculty motivation. Our restated question is "What effect does DE have on faculty motivation"?

In answering the above question an evaluation of three factors was conducted:

1. Difference in motivation of faculty according to career status (junior, senior, departmenthead).
2. Difference in Administrative and faculty perceptions of reward structure, and
3. Difference in motivation to teach via distance (intrinsic and extrinsic).

Below are distributions that are supportive of the evaluation factors:

Table 1 Rank

RANK		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Non-tenured	3	23.1	25.0	25.0
	Tenured	8	61.5	66.7	91.7
	Administrative	1	7.7	8.3	100.0
	Total	12	92.3	100.0	
Missing	System				
	Missing	1	7.7		
	Total	1	7.7		
Total		13	100.0		

Table 1 shows that 23.1% of the respondents were non-tenured or junior faculty, 61.5% were tenured, and 7.7% were administrators.

Table 2 Motivation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Intrinsic	8	61.5	66.7	66.7
	Extrinsic	4	30.8	33.3	100.0
	Total	12	92.3	100.0	
Missing	System				
	Missing	1	7.7		
	Total	1	7.7		
Total		12	100.0		

Table 2 gives us a little more insight in to what their motivations are. Our findings are 61.5% of the respondents say that their source of motivation is personal fulfillment. 30.8% answered that an opportunity to help student learn via DE is their gratification. A total of 92.3% of the respondents provided answers that are in line with our definition of intrinsic motivation. It seems highly likely that the majority of faculty are intrinsically motivated regardless of rank.

In an effort to determine what faculty desired (money, time, assistance, or formal recognition) the most when creating a DE 69.2% responded that time is most desired, followed by assistance, money, and recognition respectively. This supports the idea that faculty are intrinsically motivated. Faculty were also asked, "If you were to leave your job to accept another position, would you want to do more, less, or about the same teaching via distance?", 92.3% responded that they would like do about the same or more (see Table 3).

Table 3 Amount

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	More	6	46.2	50.0	50.0
	Same	6	46.2	50.0	100.0
	Less	0	0	0	
	Total	12	92.3	100.0	
Missing	System				
	Missing	1	7.7		
	Total	1	7.7		
Total		13	100.0		

Faculty was also asked what were the major support issues that they have encountered at their institution. The majority responded that technical support was the most encountered.

The above frequency distribution analysis gives a foundation upon which we can continue to build our case about faculty motivation.

Factor analysis was used to determine where improvements could be made to the survey questionnaire. Changes were made according to the clusters that were generated using the Principal component analysis extraction method with varimax normalization. Due to the time constraint of the study, the modified survey could not be redistributed to the sample.

Table 4

Rotated Component Matrix [a]

	Component		
	1	2	3
EXTIME	.761	.125	.234
SFSUP	.747	-.192	-6.65E-02
FASUP	.713	.291	-.297
STSUP	.703	.169	.133
TEREWARD	-.667	6.314E-03	.188
REREWARD	-.615	-.356	-.389
EXASSIST	-.564	.361	.543
ADREWARD	.114	.856	9.282E-02
DEREWARD	-.415	.779	-9.24E-02
TESUP	.233	.677	.143
EXMONEY	-.362	-.628	.533
SEREWARD	.303	.138	.844
EXRECOG	-.165	-.164	.832
MOTIVE	-8.03E-03	-5.57E-02	-.489

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

The Time and Support Factor shows that faculty value support and time in their creation of DE, we can see this factor by analyzing the loads associated with the first six variables. The loads are as follows; .761 time (value time to create DE), .747 support (staff support resources), .713 faculty support (major support issue), .703 student support (student support resources), -.667 teaching rewards (institutional reward), -.615 research (institution reward). This information tells us the difference of perception between faculty and the administration. Faculty value and place importance on time and support to create and deliver DE, but the institution rewards research and traditional teaching methods.

The External Reward factor provides us with additional information that shows us the gap that exists between faculty and administration. The loads are as follows; .856 administrative reward (institution rewards), .779 distance education reward (institution rewards), .677 technical support (major support issue), and -.628 money (value most in creating a DE course). Money has a negative load value, this may be interpreted to mean that in regards to other factors the reward of money does not outweigh the reward of factors (time, assistance, and recognition) that support the development of internal motivation.

The loads associated with the Service and Recognition factor are; .844 service reward (institution rewards) and .832 recognition (value most in creating a DE course). These loads show that faculty also value performing service and being recognized for their efforts in DE.

Our analysis of the factors paints a picture that is quite easy to interpret. The reality of the problem is that faculty and administration have different perceptions of what is important to each other. The faculty values time and assistance when working in DE. On the other extreme administrators value things that are institutionally rewarded, such as research and how many students are in the classroom. However, we must not stop here further analysis need to be done to sharpen our focus.

Third, a t-Test was applied to the data to test for significance. Although, t-Tests were conducted no significance was found. This can be attributed to lack of power due to a small data pool. However, this does not mean that the study is not significant. It does mean that further research with a larger data pool must be conducted in order to verify significance. The results from the frequency distribution and factor analysis tests lend credence to a strong possibility of significance. Currently, we can only suggest that with a larger data pool statistical significance would be the result.

It appears that faculty are intrinsically motivated to teach in DE. This finding should not determine the end of Administrator and Policymaker efforts to create a fair and equitable environment for faculty. Administrators and Policymakers should take this opportunity to create an atmosphere that fosters intrinsic motivation. This does not imply that faculty are not concerned with promotion and tenure or other external rewards. The reality is that external rewards are extremely important to their existence, but personal fulfillment is equally as important. Therefore, Administrators and Policymakers must work with faculty to reach a balance between external rewards and intrinsic motivators (Olcott & Wright, 1995).

Motivation theory supplies a foundation upon which faculty socialization to DE can be built. Motivation offers many theories that may help build institutional and self-efficacy; thereby, increasing intrinsic motivation and internalizing external motivators. Theories such as goal setting, participant modeling, and intrinsic motivation can all be used to foster an efficacious environment.

References

Bandura, A. (1991). Social cognitive theory of self-regulation. Organizational behavior and human decision processes, 50, 248-287.

Bandura, A., & Schunk, D. H. (1981). Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation. Journal of personality and social psychology, 41(3), 586-598.

Blackburn, R. T., & Lawrence, J. H. (1995). Faculty at work motivation, expectation, satisfaction. Baltimore: The Johns Hopkins University Press.

Clark, T. (1993). Attitudes of higher education faculty toward distance education: a national survey. The American Journal of Distance Education, 7(2), 19-34.

Deci, E. L. (1971). Effects of externally mediated rewards on intrinsic motivation. Journal of personality and social psychology, 22, 105-115.

Deci, E. L., Eghrari, H., Patrick, B. C., & Leone, D. R. (1994). Facilitating internalization: the self-determination theory perspective. Journal of Personality, 62(1), 119-142.

Dillon, C. (1989). Faculty rewards and instructional telecommunications: a view from the telecourse faculty. The American Journal of Distance Education, 3(2), 35-43.

Dillon, C. L., & Walsh, S. M. (1992). Faculty: the neglected resource in distance education. The American Journal of Distance Education, 6(3), 5-21.

Fairweather, J. S. (1993). Faculty reward structures: toward institutional and professional homogenization. Research in higher education, 34(5), 603-623.

Heyman, G. D., & Dweck, C. S. (1992). Achievement goals and intrinsic motivation: their relation and their role in adaptive motivation. Motivation and emotion, 16(3), 231-247.

Kasten, K. L. (1984). Tenure and merit pay as rewards for research, teaching, and service at a research university. Journal of higher education, 55(4), 500-514.

Koontz, F. R. (1989, April 1989). Critical barriers to the adoption of instructional television in higher education. Educational technology, 45-48.

Latham, G. P., & Locke, E. A. (1991). Self-regulation through goal setting. Organizational behavior and human decision processes, 50, 212-247.

Manderlink, G., & Harackiewicz, J. M. (1984). Proximal versus distal goal setting and intrinsic motivation. Journal of personality and social psychology, 47(4), 918-928.

Newman, E. J., & Tuckman, B. W. (1997). The effects of participant modeling on self-efficacy, incentive, productivity, and performance. Journal of research and development in education, 31(1), 38-45.

Olcott, D. J., & Wright, S. J. (1995). An institutional support framework for increasing faculty participation in postsecondary distance education. The American Journal of Distance Education, 9(3), 5-17.

Taylor, J. C., & White, V. J. (1991). Faculty attitudes towards teaching in the distance education mode: an exploratory investigation. Research in distance education, 3(3), 7-11.

Vockell, E. L., & Asher, J. W. (1995). Educational research. (2 ed.). Englewood Cliffs, NJ: Simon & Schuster.

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

NOTICE

REPRODUCTION BASIS

This document is covered by a signed "Reproduction Release (Blanket) form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").